



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/550,521

09/22/2005

Frank E Semersky

1-36870

4428

43935 7590 04/23/2007  
FRASER CLEMENS MARTIN & MILLER LLC  
28366 KENSINGTON LANE  
PERRYSBURG, OH 43551

EXAMINER

ALLI, IYABO

ART UNIT

PAPER NUMBER

2877

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

04/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/550,521	<b>Applicant(s)</b> SEMERSKY ET AL.	
	<b>Examiner</b> IYABO S. ALLI	<b>Art Unit</b> 2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date, _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/22/2005</u> ( <u>19-19-05</u> ) | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. Claim 6 is objected to because of the following informalities: It its dependent off of itself and not the independent claim 1. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 12, 14-16, 19 and 20 are rejected under 35 U.S.C. 102(b) as being unpatentable over **Wertz et al.** (5,345,309).

**Wertz et al.**'s invention discloses a precision three dimensional profiling and measurement system for cylindrical containers comprising:

In regards to claim 1, a source 33 creating a beam of electromagnetic energy (Column 7, lines 23-25 and Fig. 1); an electromagnetic beam receiver 32 spaced from said source 33 for processing an output signal proportional to the girth of said object 40 being measured (Column 7, lines 12-14); a platform 60 for providing rotational 64 and vertical 62 movement of said object 40 being measured causing said object 40 to obstruct a portion of said electromagnetic beam generated by said source 33 (Column 7, lines 1-7 and Fig. 3); and a processor 50 for processing said output signal from said

Art Unit: 2877

electromagnetic beam receiver to form a composite profile **12** of said object **40** measured (Column 7, lines 42-48).

**In regards to claim 2**, a motion unit **120** for providing said rotation **64** and vertical movement **62** (Column 7, lines 4-7 and Figs. 1 and 3).

**In regards to claim 3**, a vertical drive device **110** for vertically displacing said platform **60** (Column 7, lines 5-7).

**In regards to claim 4**, a vertical drive device **110** including a linear screw drive (Column 11, lines 43-47).

**In regards to claim 5**, a motion unit **120** including a rotational drive device **110** for rotationally displacing said platform **60** (Column 7, lines 5-7).

**In regards to claim 12**, a source **33** creating a beam of electromagnetic energy (Column 7, lines 23-25 and Fig. 1); an electromagnetic beam receiver **32** spaced from said source **33** for processing an output signal proportional to the girth of said object **40** being measured (Column 7, lines 12-14); a platform **60** for supporting said object (Column 7, lines 1-7 and Fig. 3); a motion unit **120** for providing rotational **64** and vertical **62** movement of said platform **60** for disposing said object **40** within said electromagnetic beam of energy, said object **40** obstructs a portion of said electromagnetic beam generated by said source **33** (Column 7, lines 4-7 and Figs. 1 and 3); and a processor **50** for processing said output signal from said electromagnetic beam receiver **32** to form a composite profile **12** of said object **40** measured (Column 7, lines 42-48).

**In regards to claim 14**, said object **40** is vertically positioned within said primary beam of electromagnetic energy by a vertical drive device **120** for profiling a respective plane of said object **40** (Column 6, lines 62-68 and Fig. 3).

**In regards to claim 15**, said object **40** is rotationally positioned within said primary beam of electromagnetic energy by a rotational drive device **120** for profiling a respective view within a respective plane of said object **40** (Column 6 and 7, lines 66-68 and 1-7 and Fig. 3).

**In regards to claim 16**, the step of transmitting said output signal to a computer **50** for storing said composite profile **12** (Column 7, lines 42-48).

**In regards to claim 19**, the step of determining a perpendicularity of said object (Column 3, lines 64-68).

**In regards to claim 20**, the step of determining a zero reference point for said object **40** (Column 21, lines 55-58 and Fig. 25).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims **6 and 7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wertz et al.** (5,345,309) in view of **Nakagawa et al.** (4,226,539).

**Wertz et al.**'s invention discloses all of except for the vertical drive device including a gear driven and an indexing station for providing a plurality of objects to said platform, said indexing station automatically positions a respective object on said platform.

However **Nakagawa et al.** teaches, in regards to claim 6, the vertical drive device including a gear driven mechanism (Column 6, lines 2-8).

In regards to claim 7, an indexing station 3 for providing a plurality of objects 1 to said platform 4, said indexing station 3 automatically positions a respective object 1 on said platform 4 (Column 4, lines 53-59 and Fig. 1).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the indexing station of **Nakagawa et al.** with the profile measuring system of **Wertz et al.**, in order to automatically position a objects, one after another on the stage for test so that their profiles can be measure consecutively to expedite the testing process.

6. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wertz et al.** (5,345,309) in view of **Nakagawa et al.** (4,226,539), and further in view of **Wolf et al.** (4,972,258).

**Wertz et al.**'s invention as modified by **Nakagawa et al.** discloses all as applied to claim 1 above, except for said beam of electromagnetic energy is an electromagnetic laser beam, generated by a class II laser light source, and laser light source is a visible red light source including a wavelength of 670 nanometers.

However, in regards to claim 8, **Wolf et al.** teaches said beam of electromagnetic energy is an electromagnetic laser beam (Column 5, lines 23-25).

In regards to claim 9, the electromagnetic laser beam being generated by a class II laser light source **20** (Column 5, lines 23-25).

In regards to claim 10, said laser light source **20** is a visible red light source (Column 5, lines 29-30).

In regards to claim 11, said visible red light source **20** includes a wavelength of 670 nanometers (Column 5, lines 29-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include the electromagnetic laser beam of visible red light of **Wolf et al.** into the profile measuring system of **Wertz et al.**, in order to accurately measure the profile of the object with long collimated beams of light.

7. Claims **13, 17 and 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Wertz et al.** (5,345,309) in view of **Wolf et al.** (4,972,258) and furthermore in view of **Forbes** (4,972,258).

**Wertz et al.**'s invention as furthermore modified by **Wolf et al.** discloses all of except for receiving at least one secondary electromagnetic beam of energy within a receiving unit disposed opposite of said source, said at least one secondary electromagnetic beam of energy has a smaller width than said primary beam, the processing step comprising measuring a void area within said receiving unit for determining said composite profile and the processing step comprising measuring at

Art Unit: 2877

least one secondary electromagnetic beam and determining the difference between a width of said primary beam of electromagnetic energy and said at least one secondary electromagnetic beam for forming said composite profile.

However, **in regards to claim 13, Forbes** teaches positioning said object on a platform **60** of a motion unit (Column 6, lines 62-66); providing a source for generating a primary beam of electromagnetic energy of a predetermined width (Column 7, lines 15-18); vertically and rotationally disposing said object **40** within said primary beam of electromagnetic energy using said vertical motion unit **120**, said object obstructing a portion of said primary beam of electromagnetic energy (Column 7, lines 1-7 and Fig. 3); receiving at least one secondary electromagnetic beam of energy within a receiving unit disposed opposite of said source, said at least one secondary electromagnetic beam of energy has a smaller width than said primary beam (As disclosed by cited art in above reference of **Forbes** 4,465,937-Column 1, lines 55-60); and processing an output signal proportional to a girth of said object being measured to form a composite profile **12** of said object **40** measured (Column 7, lines 42-48).

**In regards to claim 17**, the processing step comprising measuring a void area within said receiving unit for determining said composite profile (Column 3, lines 3-12 and Figs. 1 and 2).

**In regards to claim 18**, the processing step comprising measuring at least one secondary electromagnetic beam and determining the difference between a width of said primary beam of electromagnetic energy and said at least one secondary



Art Unit: 2877

electromagnetic beam for forming said composite profile (Column 3, lines 12-22 and Fig. 1).

It would have been obvious to one skilled in the art at the time of the invention to include the processing steps of measuring the empty space that was obstructed from the object under test of **Forbes** with the receiving unit of **Wertz et al.**, in order to accurately measure the displaced beams that were obstructed by the object being measured.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Visible spectrum:** [www.wikipedia.org/w/index.php?title=Visible\\_spectrum](http://www.wikipedia.org/w/index.php?title=Visible_spectrum) which discloses that red light has a wavelength range of roughly 625-750 nm.

**Laser Safety:** [http://en.wikipedia.org/wiki/Helium-neon\\_laser](http://en.wikipedia.org/wiki/Helium-neon_laser) which discloses that a helium-neon laser is an example of a class II laser.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IYABO S. ALLI whose telephone number is 571-270-1331. The examiner can normally be reached on M-Th 7:30am- 5:00pm; 1st F-OFF & 2nd F- 7:30-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley can be reached on 571-272-2059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2877

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

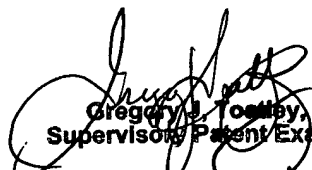
IYABO S. ALLI

Examiner

Art Unit 2877

April 04, 2007

JA

  
Gregory J. Tooley, Jr.  
Supervisory Patent Examiner  
16 APR 07